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DAZENSKI, MARC A				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/596,595

Applicant(s)BRULS, WILHELMUS HENDRIKUS
ALFONSUS**Examiner**

MARC DAZENSKI

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 June 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

The drawings are objected to because the unlabeled rectangular boxes in figures 2-6 and 9 should be provided with a descriptive text label. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claim 20 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim 20 defines a storage medium embodying functional descriptive material. However, the claim does not define a computer-readable medium or computer-readable memory and is thus non-statutory for that reason (i.e., "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" – Guidelines Annex IV). The scope of the presently

claimed invention encompasses products that are not necessarily computer readable, and thus NOT able to impart any functionality of the recited program.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, and 7-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Hughes, Jr., et al (US PgPub 2001/0038746), hereinafter referred to as Hughes.

Regarding **claim 1**, Hughes discloses layered coding of image data using separate data storage tracks on a storage medium. Further, Hughes discloses a method for recording a data stream having a base stream and an enhancement stream on a storage medium (see paragraph [0022] – [0023]) comprising the steps of:

receiving the data stream(see paragraph [0027] – [0028] and figure 1);

storing I-pictures from the base stream in a first buffer(see paragraph [0036] – [0037], wherein paragraph [0037] discloses the base layer data and the enhancement layer data may be stored on an intermediate data storage, i.e., a buffer);

storing all remaining data in a second buffer (see paragraph [0036] – [0037], and further wherein page 12 of the specification of the instant application states that a single processor or other unit may fulfill the functions of several of the units or circuits recited

in the claims and therefore the single buffer may contain both the I-pictures from the base stream as well as the all remaining data);

each time the first buffer becomes full, writing I-pictures stored in the first buffer onto an intra-coded allocation unit on the storage medium (see paragraphs [0030] and [0036] - [0037]);

writing contents of second buffer onto at least one subsequent inter-coded allocation unit (see paragraphs [0029] - [0030] and [0036] - [0037]).

Regarding **claim 2**, Hughes discloses everything claimed as applied above (see claim 1). Further, the limitations of the claim are rejected in view of the explanation set forth in claim 1 above (wherein because the base and enhancement layers are MPEG-2 encoded, both streams must contain I-pictures, B-pictures, P-pictures and non-video data).

Regarding **claim 7**, Hughes discloses everything claimed as applied above (see claim 1). Further, Hughes discloses wherein data in the intra-coded allocation units are coded with a first code and the data in the inter-coded allocation units are coded with a second code (see paragraph [[0028] – [0029]).

Regarding **claim 8**, Hughes discloses everything claimed as applied above (see claim 1). Further, Hughes discloses wherein the first buffer and second buffer are located in different sections of a single buffer (see paragraphs [0036] – [0037], and further wherein page 12 of the specification of the instant application states that a single processor or other unit may fulfill the functions of several of the units or circuits recited in the claims).

Regarding **claim 9**, Hughes discloses everything claimed as applied above (see claim 1). Further, the limitations of the claim are rejected in view of the explanation set forth in claim 1 above.

Regarding **claim 10**, Hughes discloses everything claimed as applied above (see claim 1). Further, the limitations of the claim are rejected in view of the explanation set forth in claim 1 above.

Regarding **claim 11**, the limitations of the claim are rejected in view of the explanation set forth in claim 1 above.

Regarding **claim 12**, the limitations of the claim are rejected in view of the explanation set forth in claim 1 above.

Regarding **claim 13**, the examiner maintains the claim is the corresponding apparatus to the method of claim 1 and is therefore rejected in view of the explanation set forth in claim 1 above.

Regarding **claim 14**, the examiner maintains the claim is the corresponding apparatus to the method of claim 9 and is therefore rejected in view of the explanation set forth in claim 9 above.

Regarding **claim 15**, the examiner maintains the claim is the corresponding apparatus to the method of claim 10 and is therefore rejected in view of the explanation set forth in claim 10 above.

Regarding **claims 16-17**, the examiner maintains the claims are the corresponding apparatus to the method of claims 11-12 and are therefore rejected in view of the explanation set forth in claims 11-12 above.

Regarding **claim 18**, the limitations of the claim are rejected in view of the explanation set forth in claim 1 above.

Regarding **claim 19**, the examiner maintains the claim is the corresponding apparatus to the method of claim 18 and is therefore rejected in view of the explanation set forth in claim 18 above.

Regarding **claim 20**, Hughes discloses a storage medium (see figure 1), comprising:

- at least one base allocation unit (402) for storing a base stream (see figure 1);
- and

- at least one enhancement allocation unit (404) for storing an enhancement stream (see figure 1).

Regarding **claim 21**, Hughes discloses layered coding of image data using separate data storage tracks on a storage medium. Further, Hughes discloses an apparatus for reading a data stream comprising a base stream and an enhancement stream from a storage medium having at least one base allocation unit (402) for storing the base stream and at least one enhancement allocation unit (404) for storing an enhancement stream and wherein the apparatus comprises (see figure 5, item (300)):

- a first reading unit for reading the base stream from the base allocation unit (see figure 5, items (302) and (304));

- a second reading unit for reading the enhancement stream from the enhancement allocation unit (404) (see figure 5, items (302) and (306));

a combining unit for combining the base stream with the enhancement stream in order to provide the data stream (see figure 5, item (308)); and
a reproduction unit for reproducing the data stream (see figure 5, item (310)).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hughes, Jr., et al (US PgPub 2001/0038746), hereinafter referred to as Hughes, in view of Kovacevic (US Patent 7,095,945), hereinafter referred to as Kovacevic.

Regarding **claim 3**, Hughes discloses everything claimed as applied above (see claim 2). However, Hughes fails to disclose wherein the non-video data comprises audio data, private data and system information. The examiner maintains it was well known to include the missing limitations as taught by Kovacevic.

In a similar field of endeavor, Kovacevic discloses system for digital time shifting and method thereof. Further, Kovacevic discloses wherein the non-video data comprises audio data, private data and system information (see column 3, lines 64-65; column 4, lines 1-5, lines 10-12, lines 25-27, and lines 29-41).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the layered coding of image data using separate data storage tracks on a storage medium of Hughes to include wherein the non-video data comprises audio data, private data and system information, as taught by Hondo, for the purpose of minimizing the bit-rate of a recorded stream in a recording/reproducing apparatus.

Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hughes, Jr., et al (US PgPub 2001/0038746), hereinafter referred to as Hughes, in view of Honjo (US Patent 6,006,007), hereinafter referred to as Honjo.

Regarding **claim 4**, Hughes discloses everything claimed as applied above (see claim 4). However, Hughes fails to disclose wherein the at least one inter-coded allocation unit contains P-picture, B-picture and non-video data associated with the I-pictures stored in the preceding intra-coded allocation unit. The examiner maintains it was well known to include the missing limitations, as taught by Hondo.

In a similar field of endeavor, Hondo discloses an optical disk apparatus for recording and reproducing compression encoded video signal. Further, Hondo discloses wherein the at least one inter-coded allocation unit contains P-picture, B-picture and non-video data associated with the I-pictures stored in the preceding intra-coded allocation unit (see column 2, lines 10-18 and figure 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the layered coding of image data using separate data storage tracks on a storage medium of Hughes to include wherein the at least one

inter-coded allocation unit contains P-picture, B-picture and non-video data associated with the I-pictures stored in the preceding intra-coded allocation unit, as taught by Hondo, for the purpose of minimizing a search time during reproduction of separate data streams.

Regarding **claim 5**, Hughes discloses everything claimed as applied above (see claim 1). Further, the limitations of the claim are rejected in view of the explanation set forth in claim 4 above (wherein figure 2 of Hondo discloses address data stored with the I-pictures).

Regarding **claim 6**, Hughes discloses everything claimed as applied above (see claim 4). However, Hughes fails to disclose receiving a trick play request for the stored data; reading the data in the intra-coded allocation units to create the requested trick play stream of recorded data. The examiner maintains that it was well known in the art to include the missing limitations, as taught by Hondo.

Hondo discloses receiving a trick play request for the stored data (see column 2, lines 49-58); reading the data in the intra-coded allocation units to create the requested trick play stream of recorded data (see column 2, lines 49-65).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the layered coding of image data using separate data storage tracks on a storage medium of Hughes to include receiving a trick play request for the stored data; reading the data in the intra-coded allocation units to create the requested trick play stream of recorded data, as taught by Hondo, for the purpose of executing a variable-speed playback operation smoothly.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Comer et al (US PgPub 2005/0185937) discloses interleaving of base and enhancement layers for HD-DVD using alternate stream identification for enhancement layer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARC DAZENSKI whose telephone number is (571)270-5577. The examiner can normally be reached on M-F, 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (571)272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marsha D. Banks-Harold/
Supervisory Patent Examiner, Art Unit 2621

/MARC DAZENSKI/
Examiner, Art Unit 2621